



Mineral Industry Surveys

For information, contact:

Joyce A. Ober, Sulfur Commodity Specialist

U.S. Geological Survey

983 National Center

Reston, VA 20192

Telephone: (703) 648-7717, Fax: (703) 648-7722

E-mail: jober@usgs.gov

Maria Arguelles (Data)

Telephone: (703) 648-7990

Fax: (703) 648-7975

E-mail: marguell@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

SULFUR IN APRIL 2003

During the month, production of recovered elemental sulfur was 793,000 metric tons, according to the U.S. Geological Survey (USGS). April production was 4% higher than March 2003, and 13% higher than that of April 2002. Shipments were 9% higher than those of March 2003. Producers' ending stocks for April 2003 were 183,000 tons.

Import and export data for April 2003 were not available at the time of publication and will be published in the Sulfur in May 2003 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for March 2003 were estimated to be 145,000 tons; exports were 31,000 tons. Imports of sulfuric acid for March 2003 were 63,000 tons; exports were 11,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information, data collected and published by the Alberta (Canada) Energy and Utilities Board (EUB) in its monthly production report, and information from other published sources. The EUB report is particularly valuable because the majority of Canadian sulfur is produced in that Province, and most of the Canadian sulfur that enters the United States comes from Alberta. When the data problems are solved, the USGS will resume using Census data exclusively.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources
	Petroleum ²	Natural gas	Total	
2002:				
January-December	6,770 ^r	1,720 ^r	8,490 ^r	8,480 ^r
January-April	2,220	552 ^r	2,770 ^r	2,750 ^r
April	587 ^r	115 ^r	702	683
May	576 ^r	145 ^r	721	758
June	553 ^r	132 ^r	685	680
July	565 ^r	146 ^r	711	715
August	585	125	710	721
September	539	132	671	656
October	541	164	704	695
November	579 ^r	154	733	747 ^r
December	611 ^r	168 ^r	779 ^r	755 ^r
2003:				
January	605	169	774	770
February	532	148	680	664
March ^r	601	160	761	743
April ^p	618	174	793	811
Total	2,360	652	3,010	2,990

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2002:						
January-December	1,100	9,450	430	11,300	1,710	26,800
January-March	254 ^r	1,770	104	1,690	375 ^r	4,490
March	93	722	44	863	147	1,910
April	95	668	30	663	150	1,900
May	89	409	44	1,100	142	1,730
June	67	106	30	774	97	1,270
July	113	405	44	1,140	175	1,960
August	95	1,860	30	944	138	3,240
September	86	1,050	45	1,420	148	3,010
October	108	1,240	29	944	175	3,290
November	91	843	29	942	143	2,230
December	99	1,100	45	1,640	171	3,720
2003:						
January	100	1,280	44	2,460	144	3,740
February	100	2,330	45	1,850	145	4,250
March	100	2,870	45	2,130	145	5,660
Total	300	6,480	134	6,440	434	13,600

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau; as adjusted by U.S. Geological Survey.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2002:									
January-December	615	201	17,900	217	71	3,750	1,060	344	36,400
January-March	180	59	5,200	43	14	321	345	110	10,200
March	82	27	2,190	10	3	70	118	37	3,160
April	89	29	2,040	16	5	63	111	36	3,820
May	50	16	1,750	17	6	219	67	22	2,080
June	70	23	1,770	12	4	254	83	27	2,460
July	37	12	1,300	21	7	541	61	20	2,520
August	22	7	878	22	7	224	51	17	5,430
September	37	12	1,130	19	6	319	59	19	2,120
October	33	11	1,170	9	3	255	47	15	2,110
November	51	17	1,390	28	9	1,010	93	31	3,080
December	45	15	1,310	30	10	548	142	47	2,590
2003:									
January	38	13	1,330	29	9	511	67	22	1,900
February	30	10	1,080	25	8	836	57	19	2,360
March	42	14	1,740	19	6	279	63	21	2,480
Total	110	37	4,150	73	23	1,630	187	62	6,740

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2002:					
January-December	555	40,000	148	49	12,800
January-March	119	9,070	33	11	2,620
March	34	2,560	9	3	761
April	30	2,710	12	4	953
May	8	1,980	13	4	1,070
June	127	6,650	13	4	1,100
July	2	189	12	4	887
August	49	1,340	15	5	1,230
September	70	6,920	16	5	1,840
October	76	3,450	11	4	1,040
November	60	2,400	9	3	839
December	14	5,300	14	5	1,190
2003:					
January	107	3,440	12	4	1,380
February	63	3,410	16	5	1,150
March	31	2,020	11	3	1,360
Total	201	7,670	39	12	3,880

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2002:			
January-December	7,920 ^r	1,600	9,520 ^r
January-March	1,370	259	1,620
March	653	147	800
April	653	150	803
May	749	142	891
June	553	97	650
July	713	175	888
August	672	138	810
September	586	148	734
October	619	175	794
November	687 ^r	143	830 ^r
December	741 ^r	171	912 ^r
2003:			
January	663	144	807
February	601	145	746
March	712	145	857
Total	1,980	434	2,410

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	April 2003 ^p		March 2003		Total 2003 ²		Year to date 2002 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production ^r	Shipments
PAD 1:								
Petroleum and coke	15	15	20	19	74	75	89	89 ^r
Natural gas	2	2	2	2	8	8	10	10 ^r
Total	17	17	22	21	83	84	99	100 ^r
PAD 2:								
Petroleum and coke	75	76	73	72	297	291	263	264 ^r
Natural gas	3	3	4	4	14	15	18	17
Total	78	79	77	76	311	305	281	281 ^r
PAD 3: ³								
Petroleum and coke	397	408	388	375	1,510	1,510	1,430	1,410 ^r
Natural gas	44	47	31	29	140	143	177	179 ^r
Total	441	455	419	404	1,650	1,660	1,610	1,590 ^r
PAD 4 and 5: ⁴								
Petroleum and coke	131	133	120	122	477	467	437	436 ^r
Natural gas	125	127	123 ^r	121	490	477	347	347 ^r
California	115	116	98	100	387	385	294	294 ^r
Total	256	260	244 ^r	243	966	944	785	783 ^r
Grand total	793	811	761 ^r	743	3,010	2,990	2,770	2,750 ^r

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2003			2002
	April	March	Year to date	total
Production	9.65 ^p	8.96 ^r	9.15	8.49 ^r
Shipments	9.87 ^p	8.75 ^r	9.09	8.48 ^r
Exports of sulfur	NA	0.37	0.82	0.56
Imports of sulfur:				
Canada	NA	1.18 ^e	1.22 ^e	1.10
Mexico	NA	0.53	0.54	0.43
Total ²	NA	1.71 ^e	1.76 ^e	1.71
Export of H ₂ SO ₄	NA	0.13	0.16	0.15
Import of H ₂ SO ₄ :				
Canada	NA	0.49	0.45	0.62
Europe	NA	0.22	0.30	0.22
Total ²	NA	0.74	0.76	1.06
Consumption: ³				
Domestic sources	NA	8.38	8.01	7.92
Imports	NA	1.71 ^e	1.76 ^e	1.71
Total	NA	10.10	9.77	9.52 ^r
Sulfur export values ⁴	NA	\$65	\$38	\$72
Sulfur import values: ⁴				
Canada	NA	\$29	\$22	\$9
Mexico	NA	\$47	\$48	\$26
Average	NA	\$39	\$31	\$16
H ₂ SO ₄ export values ⁴	NA	\$124	\$100	\$86
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$41	\$38	\$29
Europe	NA	\$15	\$22	\$17
Average	NA	\$39	\$36	\$34

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because April trade data were not available, April consumption was not determined.

⁴Average value per ton for most recent data available.